PTO/SB/05 (08-03)

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UTILITY PATENT APPLICATION TRANSMITTAL

(Only for new nonprovisional applications under 37 CFR 1.53(b))

spond to a collection of inform	ation unless it displays a valid OMB control number.			
Attorney Docket No.	0113222-150			
First Inventor	A. VIERHEILIG			
Title	Attrition-Resistant, Zinc Titanate-Co			
Express Mail Label No.	EV 324102152 US			

APPLICATION ELEMENTS See MPEP chapter 600 concerning utility patent application contents.	ADDRESS TO: Commission P.O. Box 1	Patent Appli oner for Pate 450 v VA 22313-	ents	PT0		
1. Fee Transmittal Form (e.g., PTO/SB/17) (Submit an original and a duplicate for fee processing) Applicant claims small entity status. See 37 CFR 1.27. 3. Specification [Total Pages_36_] (preferred arrangement set forth below) - Descriptive title of the invention - Cross Reference to Related Applications - Statement Regarding Fed sponsored R & D - Reference to sequence listing, a table, or a computer program listing appendix - Background of the Invention - Brief Summary of the Invention - Brief Description of the Drawings (if filed) - Detailed Description - Claim(s) - Abstract of the Disclosure 4. Drawing(s) (35 U.S.C. 113) [Total Sheets_5] 5. Oath or Declaration [Total Sheets_5] 1. Newly executed (original or copy) 2. Copy from a prior application (37 CFR 1.63(d)) (for continuation/divisional with Box 18 completed)	7. CD-ROM or CD-R in duplic Computer Program (Apper 8. Nucleotide and/or Amino Acid (if applicable, all necessary) a. Computer Readable b. Specification Sequential CD-ROM or CI ii. Paper c. Statements verifying ACCOMPANYING AF 9. Assignment Papers (cov 37 CFR 3.73(b) Statement (when there is an assign English Translation Doct Information Disclosure Statement (IDS)/PTO-14 13. Preliminary Amendment 14 Color Preliminary Amendment 14 Color Preliminary Amendmental Posture Presidential Color Preliminary Amendmental Color Preliminary Color	ndix) Sequence Form (CRi nce Listing D-R (2 cop glidentity of PPLICAT rer sheet & ee) gument (if a)	Submission F) on: ies); or f above copies ION PARTS document(s)) Power of Attorney policable) Copies of IDS Citations	19270 U.S 10/7909		
i. DELETION OF INVENTOR(S) Signed statement attached deleting inventor(s) name in the prior application, see 37 CFR 1.63(d)(2) and 1.33(b). 6. Application Data Sheet. See 37 CFR 1.76	14. Return Receipt Postcard (MPEP 503) (Should be specifically itemized) 15. Certified Copy of Priority Document(s) (if foreign priority is claimed) Nonpublication Request under 35 U.S.C. 122 (b)(2)(B)(i). Applicant must attach form PTO/SB/35 or its equivalent. 17. Other:					
49 If a CONTINUUM ADDI ICATION, shock appropriate boy, and aver	aly the may inite information helpy on	d in the fire	et contance of the			
18. If a CONTINUING APPLICATION, check appropriate box, and sup specification following the title, or in an Application Data Sheet under 3		u III 111 0 1113	st semence or me	r		
Prior application information: Examiner Lange 1, Ways For CONTINUATION OF DIVISIONAL APPS only; The entire disclosure of the 5b, is considered a part of the disclosure of the accompanying continuation The incorporation can only be relied upon when a portion has been inadver	ne A. Art Unit: e prior application, from which an oath of or divisional application and is hereby tently omitted from the submitted applic	1754 or declaration	ed by reference.			
19. CORRESPON	DENCE ADDRESS					
Customer Number: 28089	OR Corre	spondence	address below			
Name						
Address						
City	State	Zip Co				
	elephone	Fax	(
Name (Print/Type) Leslie A. Serunian	Registration No. (Attorney/Agent)		35,353			
Signature Leslie a. Serunian		Date	03/02/200)4		

This collection of information is required by 37 CFR 1.53(b). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop Patent Application, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

PTO/SB/17 (10-03)

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for FY 2004	F
Fiftertive 10/01/2003 Patent fees are subject to annual of	F

Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT

Complete if Known					
Application Number	To Be Assigned				
Filing Date	03/02/2004				
First Named Inventor	A. VIERHEILIG				
Examiner Name	To Be Assigned				
Art Unit	To Be Assigned				
Atterney Decket No.	0440000 450				

METHOD OF PAYMENT (check all that apply)	FEE CALCULATION (continued)					
Check Credit card Money Other None	3. AE	3. ADDITIONAL FEES				
Deposit Account:	Large Entity Small Entity					
Deposit Account.	Fee Code	Fee (\$)		Fee (\$)	Fee Description	Foe Boid
Account 08-0219	1051	130	2051		Surcharge - late filing fee or oath	Fee Paid
Deposit	1052	50	2052		Surcharge - late provisional filing fee or	
Account Name Hale and Dorr LLP					cover sheet	
The Director is authorized to: (check all that apply)	1053	130	1053		Non-English specification For filing a request for ex parte reexamination	
Charge fee(s) indicated below Credit any overpayments		2,520	1812	•	-	
Charge any additional fee(s) or any underpayment of fee(s)	1804	920*	1804	920-	Requesting publication of SIR prior to Examiner action	
Charge fee(s) indicated below, except for the filing fee	1805	1,840*	1805	1,840*	Requesting publication of SIR after	
to the above-identified deposit account.	4054	440	2254	FF	Examiner action	
FEE CALCULATION	1251	110	2251	55 240	Extension for reply within first month Extension for reply within second month	
1. BASIC FILING FEE	1252 1253	420 950	2252 2253	210	Extension for reply within third month	
Large Entity Small Entity Fee Fee Fee Fee <u>Fee Description</u> Fee Paid		1,480	2253	740	• •	
Code (\$) Code (\$)		•			Extension for reply within fifth month	
1001 770 2001 385 Utility filing fee		2,010	2255	.,		
1002 340 2002 170 Design filing fee	1401	330	2401		Notice of Appeal	<u> </u>
1003 530 2003 265 Plant filing fee	1402	330	2402		Filing a brief in support of an appeal	
1004 770 2004 385 Reissue filing fee	1403	290	2403		5 Request for oral hearing	
1005 160 2005 80 Provisional filing fee		1,510	1451		Petition to institute a public use proceeding	
SUBTOTAL (1) (\$) 770.00	1452	110	2452		5 Petition to revive - unavoidable	
2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE		1,330	2453		5 Petition to revive - unintentional	
Fee from	1501 1502	1,330 480	2501 2502		5 Utility issue fee (or reissue)) Design issue fee	\vdash
Extra Claims below Fee Paid Total Claims 32 -20** = 12 X 18 = 216	1502	640	2502) Plant issue fee	-
Independent 2 2** - Y	1460	130	1460		Petitions to the Commissioner	
Claims Aultiple Dependent 290 = 290	1807	50	180		O Processing fee under 37 CFR 1.17(q)	
Large Entity Small Entity	1806	180	180		O Submission of Information Disclosure Stmt	
Fee Fee Fee Fee Description				•	Recording each patent assignment per	
Code (\$) Code (\$) 1202 18 2202 9 Claims in excess of 20	8021	40	802	•	property (times number of properties)	
1202 18 2202 9 Claims in excess of 20 1201 86 2201 43 Independent claims in excess of 3	1809	770	280	9 385	5 Filing a submission after final rejection (37 CFR 1.129(a))	
1203 290 2203 145 Multiple dependent claim, if not paid	1810	. 770	281	0 38	5 For each additional invention to be examined (37 CFR 1.129(b))	
1204 86 2204 43 ** Reissue independent claims over original patent	1801	770	2801	38	5 Request for Continued Examination (RCE)	
1205 18 2205 9 ** Reissue claims in excess of 20 and over original patent	1802	900	1802	90	Request for expedited examination of a design application	ļ
CURTOTAL (2) (\$\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	Other fee (specify)					
*Reduced by Basic Filing Fee Paid SUBTOTAL (3) (\$) 0.00				0.00		

SUBMITTED BY	(Complete (if applicable))				
Name (Print/Type)	Leslie A. Serunian	Registration No. (Attorney/Agent)	35,353	Telephone	212-937-7315
Signature	Reslie, a. Serunian			Date	03/02/2004

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

This collection of information is required by 37 CFR 1.17 and 1.27. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESSEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Docket No.: <u>0113222-150</u>

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s):

A. VIERHEILIG et al.

Examiner: To Be Assigned

U.S. Serial No.:

To be Assigned

Art Unit: To Be Assigned

Filing Date:

Herewith (March 2, 2004)

For:

Attrition Resistant, Zinc Titanate-Containing, Reduced Sulfur

Sorbents and Methods of Use Thereof

Mail Stop Patent Application

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

SIR:

CERTIFICATE OF EXPRESS MAILING

Date of Deposit: March 2, 2004

I hereby certify that the documents listed below and/or in the attached Application Transmittal are being deposited with the United States Patent and Trademark Office as Express Mail bearing Express Mail Label No. <u>EV 324102152 US</u> in an envelope with prepaid postage under 37 C.F.R. §1.10 on the date indicated above and addressed to: **Mail Stop Patent Application**, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450:

- 1) Utility (Divisional) Patent Application containing: <u>36</u> total pages, including <u>31</u> pages of Specification; 4 pages of Claims; and 1 page of Abstract;
- 2) Figures 1-5 (5 sheets);
- 3) Combined Declaration and Power of Attorney (newly executed), (5 pages);
- 4) Application Data Sheet (2 pages);
- 5) Utility (Divisional) Patent Application Transmittal (1 page);
- 6) Fee Transmittal for Application (1 page);
- 7) Certificate of Express Mailing (1 page); and
- 8) Return Postcard

Signature: Seslie U. Serunian

Printed Name: Leslie A. Serunian

Respectfully submitted, HALE AND DORR LLAP

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